Shaffer (1980) believes no significant movement has occurred on the Elevenmile fault since the late Pinedale glaciation.

The only known Neogene thrust fault in Colorado is at Red Mountain, just east of Kremmling and north of U.S. Highway 40. Red Mountain is a thrust block of Precambrian rock that has slid over the Miocene Troublesome Formation and Cretaceous Dakota Sandstone. Izett (1975) believes Red Mountain is a Laramide klippe of Precambrian rock that moved again in the Miocene as a gravity-slide block resulting from reactivation of the Williams Range fault. The thrust at Red Mountain is not shown on Plate 1 because of its limited areal extent.

3.3. WESTERN MOUNTAIN PROVINCE

Relatively few faults of Neogene age occur in the western mountain province. Several faults in the San Juan volcanic field offset Neogene rocks, but most are related to caldera collapse and are not recurrently active tectonic faults. Several faults in the Gysum-Burns area also offset Neogene rocks, but most of these are probably associated with flowage or solution in the Eagle Evaporite. A few of the Precambrian faults of the west to northwest trend (Tweto, 1979b), such as the Cimarron fault (fault number 94) and other faults to the east that are not shown on Plate 1, show minor evidence of Neogene reactivation. A few other Neogene faults are scattered throughout the western mountain province, but none are major tectonic faults that have experienced any known significant Quaternary activity.

3.3.1. SAN JUAN MOUNTAINS

The San Juan Mountains are believed to be relatively free of Neogene faulting. Atwood and Mather (1932) suggested this region experienced repeated crustal upwarp, accompanied by thousands of meters of fault movement that began in the Miocene and continued into the late Quaternary. Recent work by T. A. Steven (1977, oral commun.) disproves this. Steven finds virtually no evidence of large magnitude Neogene fault movement in the San Juan Mountains except for faults associated with the collapse of the Lake City caldera, numerous faults in the eastern end of the San Juan Mountains, a segment of the Cimarron fault, and fault number 96. The N.30°W.-trending fault number 96 displaces the Miocene basalt that caps Cannibal Plateau about 100 m (T.A. Steven, 1977, oral commun.). Steven also believes part of the Cimarron fault (fault number 94) has moved a few meters since the Miocene. Neither of these faults show evidence of Quaternary activity. Other faults in the area are suspected of minor Neogene movement (R. G. Young, 1977, oral commun.; J. B. Johnson, 1977, oral commun.), but recent movement has not been documented.

The Lake City Caldera is a resurgent caldera that erupted the 22.5 m.y. old Sunshine Peak Tuff (Steven and others, 1974). Caldera collapse occurred shortly thereafter and the Miocene age tuff was broken by numerous faults (fault group 95). These faults apparently have not moved since caldera collapse, and are probably not capable of significant future movement.